ABSTRACT

The study is based upon the assumption that Computer Assisted Language Learning, henceforth (CALL), can be used in teaching English especially for developing writing skills. During this study, the survey and experiment method was adopted to test the null hypothesis that the use of CALL has no effect on the teaching and learning of English, especially for developing writing skills of the students of the Polytechnics of Assam. The statistical software SPSS was used to analyze the data.

The content of the thesis has been organized in six chapters.

In the first chapter, an attempt has been made to study the needs for English language teaching in the Polytechnics of Assam and the problems of ELT in these institutions. The present compulsory English course cannot develop communicative skills especially the writing skill of the learners. The contents and methodology adopted by teachers cannot equip the students with necessary language competence. Students appear to be more concerned with doing well in their technical subjects and therefore give less importance to English because they have just to secure pass marks in the subject. Hence it is necessary to motivate and induce the learners to develop their writing skills as such skills cannot be neglected in view of their future academic and professional needs.

A sub-section on review of related literature focusing on discussions of relevant research works in the area is also included in this chapter.

The chapter also spells out the objectives of the study and the methodology adopted for realizing these objectives. The main objectives of the study were to:

i. analyze the attitudes of the teachers and the learners of English in the Polytechnics of Assam towards the application of computer in teaching and learning English especially in developing writing skill;

ii. explore the possibilities of integrating CALL into the syllabus especially for developing writing skills both in and outside the classroom;
iii. work out a model and suggest an alternative or modified syllabus for using CALL in developing writing skills among the students of the polytechnics in Assam in order to encourage them to use the skills in real-life situations;

iv. conduct an experiment among two groups of students to see the efficacy of the modified syllabus.

The second chapter contains a discussion of the history and development of CALL. The three main stages of CALL i.e. Behaviouristic CALL, Communicative CALL and Integrative CALL were discussed in detail. The chapter also contains a discussion of various types of CALL such as web-based CALL i.e. CMC (synchronous and asynchronous), the Internet, and multimedia CALL.

In the third chapter, the uses of CALL for developing writing skills have been discussed in detail from the theoretical point of view. Word processors, grammar-checkers, use of dictionary, etc. are helpful in developing language skills of the learners. At the end of the chapter, eight writing activities in CALL for a wide range of communicative purposes as propounded by de Szendeffy (2005) were also discussed.

The fourth chapter contains of a discussion of the survey conducted among the randomly selected students and teachers of the two Polytechnics of Assam viz. Nowgong Polytechnic, Nagaon and Girls’ Polytechnic, Guwahati to know their attitude towards the teaching-learning of English in technical education and the need for using CALL for developing communication skills of the learners. The findings of the survey indicated that both teachers and students had positive attitude towards the use of CALL for developing writing skills. On the basis of the findings of the survey and other research studies a modified syllabus was designed incorporating CALL in teaching English in the traditional English classroom.

The fifth chapter contains a model syllabus that was designed for using CALL, especially word processor, in teaching English in and outside the classroom and a discussion of an experiment carried out to implement the syllabus.
model syllabus consisted of the contents such as grammar and vocabulary, listening, speaking, reading and writing. The main features of each of the contents were listed along with the examples of materials and scope for test and evaluation.

An online experiment (asynchronous) was conducted among the two groups of students (selected randomly) of Nowgong Polytechnic, Nagaon (Group A) and Girls' Polytechnic, Guwahati (Group B) in a computing environment. Twenty students in each group participated in the experiment and communications with them were made via email only. The collected data were subjected to statistical analysis to determine Mean, Standard Deviation (SD), and t-test by using the statistical software SPSS programme.

At the beginning of the experiment, an Entry-level test was conducted among the participants of the two groups. There were four tasks given to the participants, namely, (i) IT vocabulary and elementary grammar—in this task questions were divided into two groups: Group A & Group B. In group A, questions were framed on the basic terminology in the field of information technology and in group B, questions were asked mainly on elementary grammar such as tense, preposition, use of appropriate vocabulary, etc; (ii) paragraph writing—in this task, students were asked to write a paragraph on a given topic by developing the points given. One of the main objectives of the task was to get an idea about the knowledge and creativity of the students; (iii) comprehension—in this task, students were given an unseen paragraph with some comprehension questions on it. Students were asked to write the answers in their own language; and (iv) summary writing—in this task, students were asked to write a summary of an unfamiliar prose passage. All these tasks were prepared on the basis of ‘CALL in writing activities’ propounded by de Szendeffy (2005).

The result of the Entry-level test shows that that the mean value of Group A was higher than that of Group B. It also shows that the mean value of Task I was higher in the same group (Group A) whereas in the case of Group B, the mean value was higher in Task IV. The analysis shows that students of Group A have more knowledge of the IT vocabulary and elementary grammar than their
counterparts in Group B. At the same time it was also observed that students of both the Groups were weak in writing skills.

After analyzing the students' performance in the Entry test the researcher involved the selected groups in the process of developing their skills by applying CALL. The researcher provided exercise materials (online and offline) to make them aware of the opportunity for using CALL materials in and outside the classroom and to familiarize them with different types of computer-based tasks/exercises. The participating students expressed their willingness to devote extra-time and do more exercises and revise them repeatedly in order to improve their writing skills. The two groups took part in the experiment and continued their CALL activities for a period of six months. At the end of the period an Exit test was conducted to see whether the students could improve their skills through CALL activities.

The result of the Exit test shows that the students' progress during different phases was highly significant or significant except during the period between Task III to Task IV. The findings of the frequency test show that students of both the groups developed their writing skills during the period of Task I—Task IV. During this period 85% of the respondents in each group improved their writing skills with the use of CALL, mainly word processor. When the achievements of both groups were compared, it was found that 85% of the students showed a positive change in their writing skills. This, besides the analysis of other tests by SPSS, also proves that the model as well as the method of experiment was highly significant and it rejected the null hypothesis.

It is found from a comparative analysis that the mean value of all tasks in Exit test is higher than that of Entry level test in both the groups and thus the difference in the achievement is highly significant.

When the performance of students from Entry Test Task I to Exit Test Task IV was compared, it was found that the mean value of Task IV in Exit test was higher as compared to Task I of Entry test in both the groups. After the experiment, a survey was conducted among the participants of the two groups on the frequency
of the uses of computer programmes/ tool menu during Entry-level and Exit tests to find out whether repeated use of such programmes/ tool menu helped students in developing their writing skills.

Thus the experiment and the analysis of the findings with the help of SPSS reflect the validity of the test which rejected the null hypothesis.

The concluding chapter recapitulates the discussions of the earlier chapters, points out the limitation of the present study and future scope of research. This is followed by references and appendices.